

WHAT IS CLAIMED IS:

1. A heat transfer system comprising a heat transfer fluid and a means for desorbing water from the heat transfer fluid,
5 the heat transfer fluid comprising at least about 40 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, a nitrate compound and an
10 azole compound, the composition comprising less than about 0.5 weight percent added water.
2. The heat transfer system of claim 1 wherein the heat transfer fluid includes from about 84.5 to about
15 99.85 weight percent non-buffered propylene glycol.
3. The heat transfer system of claim 1 wherein said molybdate salt is sodium molybdate.
4. The heat transfer system of claim 1 wherein said nitrate compound is sodium nitrate.
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5. The heat transfer system of claim 1 wherein said azole compound consists of tolyltriazole.
6. The heat transfer system of claim 1 wherein said propylene glycol is present in a concentration of
25 about 94.5% to about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.
7. The heat transfer system of claim 1 wherein said propylene glycol is present in a concentration of
30 greater than about 99.0% by weight, and said propylene glycol soluble additive comprises a mixture of about 0.3%

sodium molybdate by weight, about 0.3% sodium nitrate by weight, and about 0.3% tolyltriazole by weight.

8. The heat transfer system of claim 1 wherein the
5 heat transfer system is an internal combustion engine heat exchange system.

9. The heat transfer system of claim 1 wherein the heat transfer system is a motor vehicle engine heat exchange system.

10 10. A heat transfer fluid composition effective for use in heat exchange systems comprising at least about 40 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group
15 consisting of a molybdate salt, a nitrate compound and an azole compound, the composition comprising less than about 0.5 weight percent water.

11. The heat transfer fluid of claim 10 wherein the heat transfer fluid includes from about 84.5 to about
20 99.85 weight percent non-buffered propylene glycol.

12. The heat transfer fluid of claim 10 wherein said molybdate salt is sodium molybdate.

13. The heat transfer fluid of claim 10 wherein said nitrate compound is sodium nitrate.
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14. The heat transfer fluid of claim 10 wherein said azole compound consists of tolyltriazole.

15. The heat transfer fluid of claim 10 wherein said propylene glycol is present in a concentration of
30 about 94.5% to about 99.85% by weight, and the propylene

glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazole.

16. The heat transfer fluid of claim 10 wherein said propylene glycol is present in a concentration of greater than about 99.0% by weight, and said propylene glycol soluble additive comprises a mixture of about 0.3% sodium molybdate by weight, about 0.3% sodium nitrate by weight, and about 0.3% tolyltriazole by weight.

17. A method of cooling a heat exchange system which comprises circulating a composition in said system, said composition comprising at least about 94.5 weight percent non-buffered propylene glycol, and about 0.05 to about 5.0 weight percent of at least one propylene glycol soluble additive selected from the group consisting of a molybdate salt, a nitrate compound and an azole compound, the composition comprising less than about 0.5 weight percent water; wherein water is added to the system during operation to maintain a starting volume, the added water being less than 7 weight percent, the method effective for providing reduced corrosion as compared to a heat exchange not using the composition.

18. The method of claim 17 wherein said molybdate salt is sodium molybdate.

19. The method of claim 17 wherein said nitrate compound is sodium nitrate.

20. The method of claim 17 wherein said azole compound consists of tolyltriazole.

21. The method of claim 17 wherein said propylene glycol is present in a concentration of about 94.5% to

about 99.85% by weight, and the propylene glycol soluble additive comprises a mixture of sodium molybdate, sodium nitrate and tolyltriazone.

22. The method of claim 17 wherein said propylene glycol is present in a concentration of greater than about 99.0% by weight, and said propylene glycol soluble additive comprises a mixture of about 0.3% sodium molybdate by weight, about 0.3% sodium nitrate by weight, and about 0.3% tolyltriazone by weight.

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23. The method of claim 17 wherein the heat exchange system is an internal combustion engine heat exchange system.

24. The method of claim 19 wherein the heat exchange system is a motor vehicle engine heat exchange system.

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